

**DELIVERY OF GENES ENCODING SHORT HAIRPIN RNA
USING RECEPTOR-SPECIFIC NANOCONTAINERS**

ABSTRACT OF THE DISCLOSURE

[0064] Receptor-specific nanocontainers are used to deliver a gene that encodes short hairpin RNA to cells having a given receptor. Once inside the cell, the gene expresses short hairpin RNA that includes a nucleotide sequence that is antisense to at least a portion of an oncogene, such as human epidermal growth factor receptor (EGFR) mRNA, or other disease causing nucleotide sequence. The short hairpin RNA is converted, in the cellular cytoplasm, into short RNA duplexes that are effective in deactivating (knocking down) the oncogenic or disease causing gene.